INFORMATION DISCLOSURE STATEMENT	Atty. Docket No.: 110.01290101	Serial No.: 09/884,894
	Applicant(s): Daniel J. O'Sullivan	Confirmation No.: 1710
	Filing Date: June 19, 2001	Group: 1651

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No

OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial		Document Description
DKW		Bezkorovainy et al., "Iron Metabolism in Bifidobacteria," *Int. Dairy Journal 6*, 1996; 6(10):905-919
DKW		Bezkorovainy et al., "Aspects of Iron Metabolism in Bifidobacterium Bifidum Var. Pennsylvanicus," *Int. J. Biochem.*, 1983; 15(3):361-366
DKW		Topouzian et al., "Iron uptake by Bifidobacterium bifidum var. pennsylvanicus: the effect of sulfhydryl reagents and metal chelators," *IRCS Med. Sci.*, 1986, 14(3):275-276

COPY OF PAPERS
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EXAMINER	Date Considered
Deborah K. Ware	10-17-02

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U.S. PATENT DOCUMENTS

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DKW		2,785,108	03/12/57	Hawley			
DKW		2,935,503	05/03/60	Hawley			
DKW		4,091,117	05/23/78	Mutai et al.			
DKW		4,716,115	12/29/87	Gonzalez et al.			
DKW		5,173,297	12/22/92	Vedamuthu et al.			
DKW		5,294,458	03/15/94	Fujimori			
DKW		5,340,577	08/23/94	Nisbet et al.			
DKW		5,494,664	02/27/96	Brassart et al.			
DKW		5,520,936	05/28/96	Delespaul et al.			
DKW		5,594,103	01/14/97	De Vos et al.			
DKW		5,602,109	02/11/97	Masor et al.			
DKW		5,700,590	12/23/97	Masor et al.			
DKW		5,753,614	05/19/98	Blackburn et al.			
DKW		5,776,524	07/07/98	Reinhart			
DKW		5,837,238	11/17/98	Casas et al.			
DKW		5,877,272	03/02/99	Vandenbergh			
DKW		5,902,578	05/11/99	Halpin-Dohnalek et al.			
DKW		5,902,743	05/11/99	Luchansky et al.			
DKW		5,922,375	07/13/99	Luchansky et al.			
DKW		5,952,314	09/14/99	DeMichele et al.			
DKW		5,968,569	10/19/99	Cavadini et al.			
DKW		5,972,415	10/26/99	Brassart et al.			

FOREIGN PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Country	Class	Subclass	Translation Yes	Translation No
		NONE			—	—		

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OTHER DOCUMENTS (Including Authors, Title, Date, Pertinent Papers, etc.)

Examiner Initial		Document Description
DKW		American Type Culture Collection, "ATCC Number 9341," organism: *Micrococcus luteus (Schroeter)*; designation: FDA strain PCI 1001 [online]; Manassas, VA [retrieved on 2002-04-03] from the Internet. Retrieved from the Internet: <URL: http://phage.atcc.org/cgi-bin/searchengine/longview.cgi?view=ba,534636,9341&text=9341>; 2 pgs.
DKW		American Type Culture Collection, "ATCC Number 29425," organism: *Escherichia coli (Migula)*; designation: K12 [online]; Manassas, VA [retrieved on 2002-04-03] from the Internet. Retrieved from the Internet: <URL: http://phage.atcc.org/cgi-bin/searchengine/longview.cgi?view=ba,5225109,29425&text=k12>; 1 pg.
DKW		Anderssen et al., "Antagonistic activity of *Lactobacillus plantarum* C11: two new two-peptide bacteriocins, plantaricins EF and JK, and the induction factor plantaricin A," *Appl. Environ. Microbiol.*, *64*(6):2269-2272 (June 1998).
DKW		Archibald, "*Lactobacillus plantarum*, an organism not requiring iron," *FEMS Microbiol. Letts.*, *19*:29-32 (1983).
DKW		Bezkorovainy, "Iron transport an utilization by bifidobacteria," In *Biochemistry and Physiology of Bifidobacteria*, Bezkorovainy et al., eds; CRC Press, Inc., Boca Raton, FL; pp. 147-176 (1989).
DKW		Bollag et al., *Protein Methods*, Wiley and Sons, Inc., New York, NY; title page, publisher's page and table of contents – 10 pgs. (1996).
DKW		Braun "Effect of consumption of human milk and other formulas on intestinal bacterial flora in infants," Chapter 23 in *Textbook of Gastroenterology and Nutrition in Infancy*, Raven Press, New York, NY; pp. 247-253 (1981).
DKW		Breed et al., *Bergey's Manual of Determinative Bacteriology*, *7th Edition*. The Williams and Wilkins Co., Baltimore, MD; title page, publisher's page, and table of contents only – 8 pages (1957).
DKW		de Ruyter et al., "Functional analysis of promoters in the nisin gene cluster of *Lactococcus lactis*," *J. Bacteriol.*, *178*(12):3434-3439 (June 1996).
DKW		Dodd et al., "Analysis of the genetic determinant for production of the peptide antibiotic nisin," *J. Gen. Microbiol.*, *136*(Pt 3):555-566 (Mar. 1990).
DKW		Eijsink et al., "Induction of bacteriocin production in *Lactobacillus sake* by a secreted peptide," *J. Bacteriol.*, *178*(8):2232-2237 (April 1996).

EXAMINER	Date Considered
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Examiner Initial	Document Description
DKW	Engelke et al., "Biosynthesis of the lantibiotic nisin: genomic organization and membrane localization of the NisB protein," *Appl. Environ. Microbiol.*, *58*(11):3730-3743 (Nov. 1992).
DKW	Engelke et al., "Regulation of nisin biosynthesis and immunity in *Lactococcus lactis* 6F3," *Appl. Environ. Microbiol.*, *60*(3):814-825 (March 1994).
DKW	Fuller, R., "Probiotics in man and animals," *J Appl Bacteriol.*, *66*(5):365-378 (May 1989).
DKW	Fuller, R., "Probiotics for farm animals," In *Probiotics: A Critical Review*, Tannock, ed., Horizon Scientific Press, Wymondham, UK; pp. 15-22 (1999).
DKW	Green, "Case report: fatal anaerobic pulmonary infection due to *Bifidobacterium eriksonii*," *Postgrad Med.* 1978 Mar;*63*(3):187-8, 190, 192.
DKW	Gibson et al., "Regulatory effects of bifidobacteria on the growth of other colonic bacteria," *J Appl Bacteriol.*, *77*(4):412-420 (Oct. 1994).
DKW	Hansen, "Nisin as a model food preservative," *Crit Rev Food Sci Nutr.*, *34*(1):69-93 (1994).
DKW	Ibrahim et al., "Inhibition of *Escherichia coli* by bifidobacteria," *J. Food Prot.*, *56*(8):713-715 (Aug. 1993).
DKW	Immonen et al., "The codon usage of the *nisZ* operon in *Lactococcus lactis* N8 suggests a non-lactococcal origin of the conjugative nisin-sucrose transposon," *DNA Seq.*, *5*(4):203-218 (1995).
DKW	Klaenhammer, "Genetics of bacteriocins produced by lactic acid bacteria," *FEMS Microbiol. Rev.*, *12*(1-3):39-85 (Sept. 1993).
DKW	Kuipers et al., "Characterization of the nisin gene cluster *nisABTCIPR* of *Lactococcus lactis*. Requirement of expression of the *nisA* and *nisI* genes for development of immunity," *Eur. J. Biochem.*, *216*(1):281-291 (Aug. 1993).
DKW	Kuipers et al., "Autoregulation of nisin biosynthesis in *Lactococcus lactis* by signal transduction," *J. Biol. Chem.*, *270*(45):27299-27304 (Nov. 1995).
DKW	Kullen et al., "Evaluation of using a short region of the *recA* gene for rapid and sensitive speciation of dominant bifidobacteria in the human large intestine," *FEMS Microbiol. Lett.*, *154*(2):377-383 (Sept. 1997).
DKW	Mevissen-Verhage et al., "Effect of iron on neonatal gut flora during the first three months of life," *Eur. J. Clin. Microbiol.*, *4*(3):273-278 (June 1985).

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	Mitsuoka et al., "Ecology of the bifidobacteria," *American Journal of Clinical Nutrition*. 1977 Nov;30(11):1799-1810.
	Modler et al. "Bifidobacteria and bifidogenic factors," *Canadian Institute of Food Science Technology Journal* 1990;*23*(1):29-41.
	Muñoa et al., "Selective medium for isolation and enumeration of *Bifidobacterium* spp," *Appl. Environ. Microbiol.*, *54*(7):1715-1718 (July 1988).
	Neilands, "Molecular aspects of regulation of high affinity iron absorption in microorganisms," Chapter 3 in *Metal-Ion Induced Regulation of Gene* Expression, which is Vol. 8 of series *Adv. Inorg. Biochem.*, pp. 63-90 (1990).
	Neilands et al. "Comparative biochemistry of microbial iron assimilation," In *Iron Transport in Microbes, Plants and Animals*, Winkelmann et al., eds.; VCH mbh, Weinheim, Germany, pp. 3-33 (1987).
	Nes et al., "Biosynthesis of bacteriocins in lactic acid bacteria," *Antonie Van Leeuwenhoek*, *70*(2-4):113-128 (Oct. 1996).
	Nilsen et al., "An exported inducer peptide regulates bacteriocin production in *Enterococcus faecium* CTC492," *J. Bacteriol.*, *180*(7):1848-1854 (April 1998).
	O'Sullivan, "Cloning, organization and regulation of genes involved in iron metabolism in fluorescent *Pseudomonas* spp. with biocontrol potential," Ph.D. thesis, National University of Ireland, Cork; pp. 1-120 (1990).
	O'Sullivan et al., "Traits of fluorescent *Pseudomonas* spp. involved in suppression of plant root pathogens," *Microbiol. Rev.*, *56*(4):662-676 (Dec. 1992).
	O'Sullivan et al., "Tracking of probiotic bifidobacteria in the intestine," *Int. Dairy J.*, 8:513-525 (1998).
	O'Sullivan "Characterization of non-acid inhibitory characteristics of a human *Bifidobacterium* isolate against clostridia and *E. coli*," American Dairy Science Association 1999 Annual Meeting, Memphis Cook Convention Center, Memphis, TN, June 20-23, 1999 (abstract available June 19, 1999).
	O'Sullivan, "Screening of intestinal microflora for effective probiotic bacteria," *J. Agric. Food Chem.*, *49*(4):1751-1760 (Apr. 2001).
	Oyarzabal et al., "*In vitro* fructooligosaccharide utilization and inhibition of *Salmonella spp.* by selected bacteria," *Poult Sci.*, *74*(9):1418-1425 (Sept.1995).

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		Coupard et al., "Biology of the bifidobacteria," *Bacteriol Rev.*, *37*(2):136-165 (June 1973).
		Pretlow, et al., "Aberrant crypts in human colonic mucosa: putative preneoplastic lesions," *J Cell Biochem Suppl.* 1992;*16G*:55-62.
		Rammelsberg et al., "Antibacterial polypeptides of *Lactobacillus* species," *J. Appl. Bacteriol.*, *69*:177-184 (1990).
		Resnick et al., "Assessment of bifidobacteria as indicators of human fecal pollution," *Appl Environ Microbiol.*, *42*(3):433-438 (Sept. 1981).
		Rossi et al., "Improved cloning vectors for *Bifidobacterium* spp," *Lett. Appl. Microbiol.*, *26*(2):101-104 (Feb. 1998).
		Sambrook et al., *Molecular Cloning: A Laboratory Manual*, Cold Spring Harbor Laboratory Press, table of contents and title page; 26 pages (1989).
		Sanders, "Probiotics," *Food Technol.*, *53*:67-77 (1999).
		Sasaki et al., "Enhanced resistance of mice to *Escherichia coli* infection induced by administration of peptidoglycan derived from *Bifidobacterium thermophilum*," *J Vet Med Sci.*, *56*(3):433-437 (June 1994).
		Scardovi, "Genus Bifidobacterium Orla-Jensen 1924, 472^{AL}," In *Bergey's Manual of Systematic Bactgeriology, Vol. 2*, Sneath et al., eds. ; Williams & Wilkins Co., Baltimore, MD, pp. 1418-1434 (1986).
		Scardovi et al., "Deoxyribonucleic acid homology among the species of the genus *Bifidobacterium* isolated from animals," *Archiv fur Mikrobiologie*, 1970;*72*:318-325.
		Shefet et al., "Efficacy of optimized nisin-based treatments to inhibit *Salmonella typhimurium* and extend shelf life of broiler carcasses," *J. Food Prot.*, *58*(10):1077-1082 (1995).
		Siegers et al., "Genes involved in immunity to the lantibiotic nisin produced by *Lactococcus lactis* 6F3," *Appl. Environ. Microbiol.*, *61*(3):1082-1089 (Mar. 1995).
		Singh et al., "*Bifidobacterium longum*, a lactic acid-producing intestinal bacterium inhibits colon cancer and modulates the intermediate biomarkers of colon carcinogenesis," *Carcinogenesis.* 1997 Apr;*18*(4):833-41.

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		Steen et al., "Characterization of the nisin gene as part of a polycistronic operon on the chromosome of *Lactococcus lactis* ATCC 11454," *Appl. Environ. Microbiol.*, *57*(4):1181-1188 (April 1991).
		Stevens et al., "Nisin treatment for inactivation of *Salmonella* species and other gram-negative bacteria," *Appl. Environ. Microbiol.*, *57*(12):3613-3615 (Dec. 1991).
		Torres et al., "Haem iron-transport system in enterohaemorrhagic *Escherichia coli* O157:H7," *Mol. Microbiol.*, *23*(4):825-833 (Feb. 1997).
		United States Department of Health & Human Services, "Nisin preparation: affirmation of GRAS status as a direct human food ingredient," *Federal Register*, *53*(66): 11247-11251 (Apr. 1988).
		United States Food and Drug Administration, Center of Food Safety & Applied Nutrition, Office of Premarket Approval, "Antimicrobial Food Additives - Guidance," retrieved Dec. 17, 2001 from the Internet. Internet URL: <http://www.cfsan.fda.gov/~dms/opa-antg.html>, 9 pages (July 1999).
		van der Meer et al., "Characterization of the *Lactococcus lactis* nisin A operon genes *nis*P, encoding a subtilisin-like serine protease involved in precursor processing, and *nis*R, encoding a regulatory protein involved in nisin biosynthesis," *J. Bacteriol.*, *175*(9):2578-2588 (May 1993).
		Woese et al., "Bacterial evolution," *Microbiol Rev.* 1987 Jun;*51*(2):221-71.
		Yamauchi et al., "Antibacterial activity of lactoferrin and a pepsin-derived lactoferrin peptide fragment," *Infect. Immun.*, *61*(2):719-728 (Feb. 1993).
		Yildirim et al. "Characterization and antimicrobial spectrum of bifidocin B, a bacteriocin produced by *Bifidobacterium bifidum* NCFB 1454," *J. Food Prot.*, *61*(1):47-51 (Jan. 1998).

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